

Abstract

^A
 The object of the present invention is to provide a
 a method ^{of} ~~for~~ manufacturing a semiconductor device ~~that~~ uses
 a oxide dielectrics for the capacitor and ^{is able} to suppress the
 a oxidation at the interface of ^a lower electrode of the
 capacitor. The oxide dielectric capacitor is composed of
 a lower electrode layer 11, ^{an} oxide ^{dielectric layers} ~~dielectrics~~ 16 positioned
 on the lower electrode layer 11, and an upper electrode layer
 17 positioned on the oxide dielectric layer 16. The lower
 electrode layer 11 includes a double-layered conductive
 a oxide layer 12. ^{The} ~~These~~ adjacent two layers 14 and 15 are
 a composed ^{to have} ~~in~~ the same crystal structure and ^{are of} ~~with~~ the same
 element. The layer 14 positioned at the substrate 10 side
 a ^{has on} ~~includes~~ oxygen deficiency. And, since the conductive oxide
 layer 14 ^{which has on} ~~including~~ oxygen deficiency functions to prevent
 oxygen diffusion, the component 13 of the lower electrode
 a layer, adjacent to the layer 14, as well as its interface,
 a can be prevented from ^{oxidizing} ~~oxidation~~, thereby assuring a proper
 electrical connection between them.

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